

Attachment 18

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## New laptop batteries overheat, catch fire

By Alex Dobrota

TORONTO GLOBE AND MAIL

Cindy Brown wrapped an Apple laptop and put it under the Christmas tree last year, thinking about the future of her 11-year-old son in an increasingly digitalized world.

Instead, her gift turned into a flaming nightmare.

It started as a quiet April evening. Brown and her husband had set the table of their second-floor dining room in Solon, Iowa. One story below, their son Nick left his laptop idling on the living-room carpet and headed into the basement to play an Xbox video game.

About 30 minutes later, a popping sound rattled the house. Brown dropped her fork and knife and rushed down the stairs to find the carpet already melted around the laptop.

"Smoke filled the house and we got it outside kind of staring at it (thinking): 'Okay, computers don't smoke, what in the world?' " Brown, a stay-at-home mother, said.

Seconds later, the laptop erupted in a ball of flames. The family watched in disbelief as the computer flared up several times on the flagstone walkway.

"You'd like to think that it was an isolated incident," Brown said.

It's not. A string of laptop fires, sparked by faulty or overheated batteries, is raising concern with industry experts and computer manufacturers. As many as 43 laptop fires have been reported in the United States since 2001, according to statistics compiled by the U.S. Consumer Product Safety Commission. No one died, but some laptop users were severely injured, CPSC spokeswoman Julie Vallese said.

To curb this trend, laptop companies have recalled more than 150,000 batteries since Jan. 1, 2005. Hewlett-Packard recalled 15,700 of them in April alone. Dell recalled 22,000 batteries in December and Apple recalled about 120,000 batteries in 2005.

"A burning laptop is a burning laptop, and it can pretty much happen anywhere," said Carmi Levy, a senior analyst with the Toronto-based Info-Tech research group.

As laptops become faster and acquire more features such as DVD players, their batteries have to work harder, Levy said. But the machines are also getting slimmer, with less room for ventilation. This increases the risk of a meltdown and a fire, he said.

"On an airplane, I would be very concerned about this kind of thing happening," Levy said, calling for computer companies to pay more attention to the issue.

The lithium ion batteries that power most laptops produce electricity through a chemical reaction that releases oxygen, said Linda Nazar, a chemistry professor at the University of Waterloo in Ontario. The oxygen reacts with one of the battery's components, an organic solvent, to produce heat that can melt the battery's membrane, Nazar said.

"When that melts, then everything all goes to hell," she said.

That seems to have happened this month in Osaka, Japan, where the most recent reported laptop fire had people at a boardroom meeting shielding their faces as a notebook exploded on a table. No one was injured. The laptop was a Dell machine, witnesses said.

Dell is investigating and believes it was an isolated incident that does not reflect broader problems, Kevin Kettler, the company's chief technology officer, said at a recent briefing on other topics at Dell headquarters in Texas.

But George Bulat, director of hardware research at the research group IDC Canada, suggested that laptop vendors educate customers about the potential dangers.

"If you're going to be on a long-distance flight, be cognizant of the heat," he said. "If it's heating up, don't just put a pillow under it."

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